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ABSTRACT

This paper presents the results of a questionnaire sent to 211 Measurement Services Association members. Sixty-four centers responded. The main purpose of the questionnaire was to find out what hardware and software are used by testing centers throughout the country. Results indicate that 52 institutions use mainframe computers, 50 use microcomputers, and 14 use minicomputers. Fifty-nine use optical scanners. In regard to software, 55 use classroom test scoring programs, 21 use psychological/vocational interest programs, 37 use placement testing programs, 23 use item banking programs, and 28 use programs performing gradebook function. Almost every respondent uses word processing and spreadsheet programs. A list of all respondents and a copy of the questionnaire are appended. (JAZ)

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Measurement Services Association

Questionnaire Results
presented at the

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Washington, DC
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by

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TM 870 293

Measurement Services Association
Questionnaire

At the 1986 annual meeting of the Measurement Services Association in San Francisco, it became apparent that many of us were interested in what our colleagues were doing in the areas of hardware and software innovation. It was felt by many that a questionnaire which looked into hardware and software used by testing centers throughout the country could be beneficial in two ways: 1) Results from such a questionnaire could allow individual centers to assess their own position in relation to other centers, and 2) individual centers could be made aware of available software and where to obtain it in order to improve their operations.

With this in mind, in the intervening twelve months since our last visit, and under the direction of MSA Chairman Rod Gillis, a questionnaire was prepared and sent out to members of the Association. A total of 211 questionnaires were sent. Sixty-four were returned for analysis. The purpose of this report is to disseminate the information thus gathered so as to enable MSA members to accomplish the dual goals listed above.

Be aware that the purpose of this questionnaire is to provide a vehicle wherein testing center personnel can become familiar with software availability. Neither MSA, it's chairman, nor editor, make any recommendations as to suitability of software for a particular institution or even if specific software will perform as indicated. Software transportability is a very "site specific" problem and what works well in one area may not work at all in another. If you are interested in upgrading software in your center, you would be best advised to personally contact the institution indicated and deal directly with personnel there in order to consider software exchanges or purchases.

PART I - HARDWARE CONSIDERATIONS. The first part of the questionnaire dealt with specific hardware used within our offices. We were not only concerned with which computers and scanners were in use, but also with the percentage of usage on each piece of equipment.

Computer Usage. Fifty-two of the sixty-two respondents (84%) who replied to this section indicated usage of a mainframe computer to some extent (the replies were literally from 1% to 100%). Fifty of the respondents (81%) indicated some use of a microcomputer. Only fourteen of the schools (23%) utilize a minicomputer in their testing operations.

Ten institutions use a mainframe exclusively, while eight of the surveys indicated 100% reliance on microcomputers only. Only one reply indicated 100% reliance on a minicomputer.

Forty-seven of the fifty surveys that mentioned microcomputer usage indicated use of IBM-compatible equipment. Forty of the forty-seven used only IBM-compatible equipment. Only three respondents utilize non-IBM-compatible microcomputers exclusively. Seven respondents have Apple machines and six others mentioned DEC, TRS, Burroughs, Commodore, Wang, and Altos machines. The distribution of usage on computers is shown in Table 1.

Table 1
Hardware Usage

Type / %Usage	<10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
Mainframe	23	-	5	6	8	2	2	5	11	23
Minicomputer	3	5	2	2	-	-	-	3	5	3
Microcomputer	23	5	5	6	6	2	6	2	8	13

n=62, all figures shown as percentages of n.

Note, for example, 23% of respondents use a mainframe system up to 10% of the time, 5% up to 30% of the time, 6% up to 40% of the time, ... , 23% use their mainframe 100% of the time, etc.

Optical Scanners. Just as IBM-compatible micros dominate that aspect of the market, so also NCS equipment dominates when a distribution of scanners is looked at. Forty-three of fifty-nine replies concerning scanners indicated exclusive use of NCS equipment. This represents 73% of the survey. Only 8 replies (14%) used all non-NCS equipment. Of the 8 surveys reporting usage of scanners by more than one manufacturer, 7 utilized an NCS scanner in addition to one or more other machines. Thus, fifty of fifty-nine institutions use NCS equipment to some degree.

Five institutions use ScanTron equipment exclusively and four others use it in conjunction with other machines. One user reported use only of Cognitronics equipment and three others used Cognitronics scanners with other machines. No other scanner manufacturer was mentioned more than one time either alone or with another piece of equipment.

Distribution of scanner usage is shown in Table 2.

Table 2
Scanner Utilizations

Type / %Usage	<10%	20%	30%	40%	50%	60%	70%	80%	90%	100%
NCS 2050	-	-	-	-	-	-	-	-	-	-
NCS 3000	11	2	-	-	-	-	-	-	2	12
7000,01,03	-	-	2	-	-	-	-	-	4	12
7005,08,10,18	2	-	5	5	-	2	-	2	2	34
Scantron	-	2	-	-	-	-	-	-	2	4
IBM 1230	-	-	2	-	-	-	-	-	-	-
Cognitronics	2	-	-	-	2	-	-	2	-	2
Other	2	-	-	2	2	4	2	-	-	-

n=59, all figures shown as percentages of n.

PART II - SOFTWARE CONSIDERATIONS. The second part of our survey dealt with software being used by the various centers represented by membership in MSA. We wanted to look at classroom test scoring programs which we assumed were in use in almost all centers (we were right) as well as other programs such as grade rolls, item banking, psychological and vocational interest testing, placement testing, and other, perhaps more specialized programs.

Classroom Test Scoring Software. Of the sixty-four surveys returned for analysis, fifty-five indicated the use of a classroom test scoring program. Table 3 shows the percentage of users with the features they have in their programs and also how important those features are felt to be. In the columns indicating importance, the figures may not total to 100% because many did not make an indication of their feelings in that area.

Table 3
Classroom Test Scoring

Feature	Have	Importance		
		Essential	Useful	Not Useful
Item Analysis	85	80	7	4
Alpha list of names	75	73	5	4
ID list of scores	84	65	24	4
Score distribution table	69	60	11	4
Score data written to disk	65	49	24	4
Raw data written to disk	64	38	31	5
Subscores available	58	44	25	5
Differential weighting	45	40	16	11
Reliability coefficients	78	65	13	4
Collusion Coefficients	5	4	15	5
Output plot or graph	55	33	33	5
Individual score report	35	20	22	11

n=55, all figures shown as percentages of n.

Of just about as much interest as the programs in use, is the equipment those programs run on and the source of the software. Thirty-five percent of those responding indicated use of a mainframe to run their program while twenty-four indicated use of a micro. Five percent used a mini and 36% didn't indicate what they used. Over half of the respondents failed to indicate the scanner used for their classroom testing program, but given the distribution of scanners discussed above, undoubtedly most of the programs use NCS equipment.

Almost two-thirds of the respondents indicated the software used was developed in-house while only five percent indicated it had been purchased commercially. Eleven percent received their software from another institution. Table 3A shows these distributions.

Table 3A *
Hardware Configurations
Classroom Test Scoring

Computer Used:		Scanner Used:	
Mainframes	35%	NCS 3000	5%
Minicomputers	5	NCS 7000-7003	13
Microcomputers	24	NCS 7005-7018	11
No indication	36	Cognitronics	5
		Scantron	2
Source:		Other	7
Commercial	5%	No indication	56
Developed in-house	64		
Another institution	11		
No indication	20		

*Figures may not total 100% due to rounding error

Eighty-five percent of the respondents indicated they were happy with their software.

Psychological/Vocational Interest Software Only twenty-one surveys reported back as to psychological and vocational interest software being used. This would apparently indicate not nearly so many centers process this type of information as do normal classroom scoring. Most of those responding indicated they were scoring the Strong-Campbell Interest Inventory. Tests receiving a significant number of "votes" are shown in table 4.

Table 4
Psychological/Vocational Interest Programs

Test Processed	Percent scoring this test
Strong-Campbell (SCII)	57
Myers-Briggs (MBTI)	43
Minnesota Multiphasic (MMPI)	43
Calif. Psychological (CPI)	29
Edwards Personal Preference (EPPS)	14
Career Assessment Inventory (CAI)	10
Omnibus (OPI)	10
Personal Orientation Inventory (POI)	10

n=21, all figures shown as percentages of n.

Other tests mentioned: Personality Research Form, Canfield Learning Styles Inventory, 16PF, Tennessee, GATB, Runner Scale, Kentucky Comp. Listening Skills, Temp. & Values Inventory, Kuder, Herrmann, BiPolar, SSHA, Firo-B, Taylor-Johnson, Zung-D, STAI-X, STAI-Y, AUI, HWDYKY

An interesting fact concerning this type of testing is that, for the most part, the software is micro-based, and a significant percentage of the software is commercial. Eighty-one percent of the programs plot scores and of this number, 12% require a graphics printer. This information is tabulated in table 4A.

Table 4A*
Hardware Configurations
Psychological/Vocational Interest Programs

Computer Used:		Scanner Used:	
Mainframes	29%	NCS 3000	19%
Minicomputers	10	NCS 7000-7003	5
Microcomputers	48	NCS 7005-7018	10
No indication	14	Scantron	5
		Other	5
Source:		No indication	52
Commercial	29		
Developed in-house	52	Plot results:	
Another institution	5	Yes	81%
No indication	14	Graphics Printer	12%

*Figures may not total 100% due to rounding error

A problem associated with this type of software involves Federal copyright laws that protect the tests. Development of a scoring program using scales or items developed by another person or company can violate the copyright. Be aware that if you attempt to develop a program yourself, that a scoring license will probably be necessary to allow you to legally proceed. In some cases, the company or individual holding the copyright will not allow any software other than their own to be developed and no license will be issued. This is the case, for example, with the MMPI and NCS. If you are to legally score the MMPI in your office, you must use the NCS software to do so.

Other tests, such as the Strong-Campbell, are licensed out to third parties and privately developed software can be circulated so long as royalty payments are made to the publisher. In many cases, the royalty paid through such a privately developed program is considerably less than that paid through use of the publisher's own software.

Considering the small number of centers using this type of software, the overwhelming majority are pleased with their programs. Ninety-five percent of the users expressed satisfaction.

Placement Testing Thirty-seven of the sixty-four surveys returned indicated processing of some type of placement testing. By far the largest single subject tested was mathematics. This was followed by English and then basic skills programs of various types. This information is summarized in table 5.

Table 5
Placement Testing Programs

Test Processed	Percent scoring this test
Math programs	89
English programs	41
Basic Skills Programs	35
Foreign Language programs	19
Chemistry Programs	19
Reading programs	16

n=37, all figures shown as percentages of n.

Other subjects mentioned: Computer Science, Nursing, Biology, Speech Teacher Certification, Journalism, Careers.

Unlike psychological and vocational interest testing, most of the respondents in this area indicated their programs were mainframe-based and the larger NCS scanners were being used. By far the greatest percentage of programs were developed in-house and would therefore probably not be as transportable as other software mentioned in this report. This data is summarized in table 5A.

Table 5A*
Hardware Configurations
Placement Testing Programs

Computer Used:		Scanner Used:	
Mainframes	35%	NCS 3000	8%
Minicomputers	8	NCS 7000-7003	5
Microcomputers	19	NCS 7005-7018	14
No indication	38	Scantron	5
		Cognitronics	5
		Other	3
Source:		No indication	59
Commercial	5%		
Developed in-house	78	Plot scores:	
Another institution	5	Yes	14%
No indication	11		

*Figures may not total 100% due to rounding error

Almost three-fourth of the respondents (73%) indicated satisfaction with their placement software.

Specialized Testing Software In this category, we were looking for programs that handled specific tests that did not fit into the psychological/vocational interest test category. The six tests mentioned most are listed in table 6.

Table 6
Specialized Testing Programs

Test Processed	Percent scoring this test
ACT	50
GED	25
SAT	18
TOEFL	14
MAT	14
ITED	11

n=28, all figures shown as percentages of n.

Other tests mentioned: ITBS, DAT, TASK, Teacher Evaluations, Teacher Certification and Licensing, CAT, Henmon-Nelson, SCAT, CEEB Achievement Tests, Constitutional Tests

These tests seem to be more evenly split as to the type of equipment they run on. Software is available for all three types of computers and for the entire range of scanners. These programs are also mostly developed in-house, but I would guess there is a greater degree of portability in this area due to the very specific nature of the tests being processed. This information is found tabulated in table 6A.

Table 6A*
Hardware Configurations
Specialized Testing Programs

Computer Used:		Scanner Used:	
Mainframes	21%	NCS 3000	18%
Minicomputers	11	NCS 7000-7003	18
Microcomputers	29	NCS 7005-7018	14
No indication	39	Scantron	7
		Cognitronics	4
		Other	4
Source:		No indication	36
Commercial	11		
Developed in-house	71	Plot Scores:	
Another institution	7	Yes	18%
No indication	11		

*Figures may not total 100% due to rounding error

Seventy-nine percent of the respondents indicated satisfaction with this type of software.

Item Banking Software A large degree of interest was expressed in item banking software where we only had twenty-three questionnaires indicate they were doing this type of work. Table 7 summarizes the methods of data input and the special features incorporated into these programs.

Table 7
Item Banking Programs

Feature	Percent with this feature
Accept data from	
Publisher tapes	4
terminal screen	74
word processing file	30
text reader	4
keypunch	4
Upper/lower case	70
Math, Chemical symbols	30
Graphics capabilities	17

n=23, all figures shown as percentages of n.

As can be seen, the main method of data entry for item banking software is the terminal where questions are typed using specialized programs for that purpose. The next largest method of data entry is the use of word processing programs where files are subsequently integrated into the item bank. A small percentage of users accept publisher's data tapes or use a keypunch. The most innovative approach to data entry (and probably the most expensive) was the use of a text reader where an entire page of information is read directly onto the system's disk files.

These programs are resident on all three types of computers and, for the most part, were developed in-house.

Table 7A*
Hardware Configurations
Item Banking Programs

Computer Used:		Source:	
Mainframes	35%	Commercial	17%
Minicomputers	13	Developed in-house	74
Microcomputers	48	Another institution	9
No indication	4		

*Figures may not total 100% due to rounding error

Expressed satisfaction for item banking software was considerably less than for other types of software. Only 61% of users were happy with their programs. An interesting fact was that 26% of the respondents failed to indicate a degree of satisfaction. This was the only area where a significant number of people failed to rate their programs.

Gradebook Programs Another area of great interest that turned up in analyzing the surveys is that of gradebook programs. Twenty-eight of the sixty-four surveys indicated they were performing gradebook functions. Features of these programs are listed in table 8.

Table 8
Gradebook Programs

Feature	Percent with this feature
Integrate with enrollment files	46%
Accumulate test grades	89
Calculate final grades	75
Differential weighting	82

n=28, all figures shown as percentages of n.

Results on the second question on the survey, "Does the program accumulate test grades?" were somewhat surprising. Only 89% of the respondents indicated a positive response to this question. What about the other 11%? How does a gradebook program work if it doesn't accumulate grades?

Miscellaneous Software In order to see what was being done other than in those areas listed, we asked you to comment on any other software that you were using. Almost everyone is using word processing and spreadsheet programs. Other areas are listed in table 9.

Table 9
Miscellaneous Software

Data Analysis Programs
- SAS
- SPSS
- BMDP
- misc developed in-house

Teacher Evaluation Software
- all developed in-house

Housing Questionnaires
- developed in-house

Testing
- CAI
- Typing test
- Objective referenced testing
- On-line testing of English Usage
- Reader stats for holistic grading
- Item response theory modeling

Scanning (general purpose)
- Microtest (NCS 3000)
- others developed in-house for NCS 3000 and Cognitronics

Election Software
- developed in-house

Scheduling
- room assignment software developed in-house

Communications software
- VTERM
- RNET
- PC3270
- customized data transfer software

Psychological Testing
- MMPI interpretation

PART III - THE "WISH LIST" Thirty-five of the sixty-four respondents contributed to the "wish list". Three areas seemed to be of greatest concern: test scoring programs, gradebook routines, and item banking.

Test Scoring Programs Thirteen respondents desired increased test scoring capabilities. Of these, 10 wished the programs to

run on microcomputers and three wished mainframe-based software. Six of the 13 want to run the program on an NCS 3000 scanner, while the rest mentioned other NCS equipment, a Scantron 2100, and a Cognitronics. Two were willing to pay up to $200.00 for the program; 3 offered up to $500.00; 1 indicated $1000.00; and 1 offered "my first born". (He didn't say whether the first born was a boy or a girl!) Eight indicated they planned to develop the program in-house.

Item Banking Programs Twelve institutions indicated a desire for increased capability in the area of item banking and test generation. Eight want the programs to be microcomputer based, the others opted for mainframe software. Only five indicated an appropriate price to pay which ranged from $100.00 to $1000.00. Four surveys indicated the desired programs would be developed in-house, while one was looking at a commercial product and one more was interested in a program from another institution. Six did not indicate a possible source.

Gradebook Programs Nine surveys wish an improved gradebook program to be made available. Three of these wanted microcomputer based programs, three wished mainframe, and three did not respond. Scanners mentioned to be used were the NCS 3000 and NCS 7005. Only one indicated an appropriate cost, which was listed at "less than $100.00." The only source listed was one commercial.

Other Desires Other desires expressed were for microcomputer-based routines for scoring psychological/vocational tests (primarily the SCII), scheduling and registration, teacher evaluations, adaptive testing, billing, and an interactive interpreter (for programming). Also requested was a mainframe-based program for scoring the ACT. Estimated costs varied greatly for the psych/voc tests where users wanted to pay anywhere from $250.00 to $750.00 for a program. Most wanted the program to run on the NCS 3000 and expected to purchase the program from a commercial source.

List of Available Software

On the following pages are lists of all respondents by category who indicated they had software available that could be shared. In order to be included on this list, the "available to share" question for each section had to be specifically marked "yes". Where costs and options were indicated, they are listed. Remember, MSA does not specifically recommend any of the programs listed (we haven't even tried them out!), but simply lists those that members indicate are available.

If you are looking for specific software, look first at the computer and scanner columns to find the programs that utilize the hardware configuration you want. Next look at the options column to determine if the program would meet your needs, and then determine the source and contact the individual who can help you.

General Purpose Classroom Test Scoring

Features	Computer	Scanner	Source	Cost	Comments
1,2,3,4,7,8,12	1	7018	1		
1,2,3,4,6,9	3a	3000	2	25	
1,2,3,4,5,6,9,11,12	3a	1400	4		
1,2,3,4,5,6,7,8,9,11,12	2	7001	6		
1,2,3,4,5,6,7,8,9,11,12	3a	3000	6	250	9/87
1,2,3,4,5,6,7,9,12	1	7001	7		
none listed	1	3881	8		
none listed	3a	not clear	9		
1,2,3,4,5,6,8,9,11	3a	7018	18	25	
1,2,3,4,7,9	1	7005+	21	350	
1,2,3,4,5,6,7,8,9,11	1	3000,7010	23	tape,shipping	
1,2,3,5,6,7,8,9	3a	7005+	24		
1,2,3,4,5,6,7,8,9,11,12	2	7005+	29	negotiable	
1,2,3,4,5,6,7,9,11	3a	SCAN	32	250	
1,2,3,4,5,7,8,9,11,12	?	?	34		
1,3,4,5,6,7,8,9,10,11	3a	3000	35	40	
1,2,3,5,6,8,9,11,12	3a	3000	36		
1,2,3,4,5,6,7,8,9,11	1	COGN	41		
1,2,3,4,5,6,7,8,9,11	3a	COGN	41		
1,2,3,4,5,6,7,9,10,11	2	7005+	42	50	
1,2,3,4,5,6,7,9,10,11	3	7005+	42	50	
1,2,3,4,5,6,7,8,9,12	3c	3000	44	no fee	
1,2,4,6,8,9,12	1	7001	46		
1,2,3,4,6,7,9,11	1	7005+	49		
none listed	1,3a	?	50		
1,2,3,4,5,6,7,8,9,11	1	7001	51		
1,2,3,4,5,6,7,9	1	7005+	52		
1,2,3,4,8,9	1	7003	54		
1,2,3,4,5,6,7,8,9,12	1	7008	55		
1,2,3,4,5,6,7,8,9,11,12	1,3a	COGN	56		
3,5,12	1	7001+	57		
1,2,3,5,6,9,10,11	1	7005+	59		
1,2,3,4,5,6,7,8,9,11,12	2	7018	62		

The following codes are used:

Computer:

1	mainframe
2	minicomputer
3a	IBM PC or compatible
3b	Apple
3c	Other microcomputer

Scanner:

3000	NCS 3000
7001-18	NCS 7001-18
1400	Scantron 1400
SCAN	Scantron desktop
3881	IBM 3881
COGN	Cognitronics

Features:

1	Item analysis	7	Subscores
2	Alpha list	8	Differential weights
3	ID list	9	Reliability coefficients
4	Distribution table	10	Collusion coefficients
5	Scores to file	11	Graph or plot of scores
6	Raw data to file	12	Individual score report

Source:

Number refers to list of respondents attached.

Psychological/Vocational Interest Testing

Tests Scored	Computer	Scanner	Source	Cost	Comments
EPPS,SCII,OPI,BPI,POI	3a	3000,1400	6	250	each
SSHA,FIRO-B,MBTI,TJTS	3a	3000,1400	6	250	each
HERRMANN,CPI	3a	3000,1400	6	250	each
EPPS	3a	?	20		
SCII,MMPI,CPI	2	7005+	29		negotiable
Multidimensional Personality	2	7005+	29		negotiable
Misc credentialing	2	SCAN	32	15,000	
Misc credentialing	3a	SCAN	32	2,500	
MMPI,MBTI	3a	SCAN	37		
MBTI,Runner Scale	1		50		

The following codes are used:

Computer:

1	mainframe
2	minicomputer
3a	IBM PC or compatible
3b	Apple
3c	Other microcomputer

Scanner:

3000	NCS 3000
7001-18	NCS 7001-18
1400	Scantron 1400
SCAN	Scantron desktop
3881	IBM 3881
COGN	Cognitronics

Source:

Number refers to list of respondents attached.

Placement Testing

Tests Scored	Computer	Scanner	Source	Cost	Comments
Math skills	3a	3000	6	99	
McGraw Hill Reading	3a	3000	6	99	
SCAT,SCAT II	3a	3000	6	99	
Coop English	3a	3000	6	99	
DRP	?	?	16		
English placement	1	3000,7010	23		tape,shipping
ITBS,ITED,SAT,DAT	2	7005+	29		negotiable
Stanford TASK	2	7005+	29		negotiable
Math	3a	7001+	34		
Math, CS	3a	3000	35	40	
Math	3a	3000	36		
Calif Achievement Tests	any	any	41		
Metropolitan Ach. Test	3b	3000	46		
Math, English, TOEFL	1	?	50		
Nelson-Denny	1	?	50		
Nelson-Denny, Math, TSWE	?	7005+	52		
CEEB,CLEP	1	?	55		
Math Placement,Michigan	3a	COGN	56		
SAT,CEEB	3a	COGN	56		
Math, language	3a	7005+	60		
Language, Math	2,3a	3000,7018	62		

The following codes are used:

Computer:

1	mainframe
2	minicomputer
3a	IBM PC or compatible
3b	Apple
3c	Other microcomputer

Scanner:

3000	NCS 3000
7001-18	NCS 7001-18
1400	Scantron 1400
SCAN	Scantron desktop
3881	IBM 3881
COGN	Cognitronics

Source:

Number refers to list of respondents attached.

Specialized Test Scoring

Tests Scored	Computer	Scanner	Source	Cost	Comments
GED complete system	3a	3000,1400	6	495	
ACT complete system	3a	3000,1400	6	250	
ACT,CLEP	?	?	16		
SAT,TOEFL,MAT	1	7005+	19		
CLEP	1	3000,7010	23		tape,shipping
ACT	3a	3000	36		
ACT	3c	SCAN	37		
MAT,ACT	?	7005+	52		
ACT,Kentucky Comprehensive	1	7003	54		
Henmon-Nelson, ITED,STEP-II	2	7018	62		
STEP-III,SCAT-II,SCAT-III	2	7018	62		

The following codes are used:

Computer:

1	mainframe
2	minicomputer
3a	IBM PC or compatible
3b	Apple
3c	Other microcomputer

Scanner:

3000	NCS 3000
7001-18	NCS 7001-18
1400	Scantron 1400
SCAN	Scantron desktop
3881	IBM 3881
COGN	Cognitronics

Source:

Number refers to list of respondents attached.

Item Banking/Test Generation

Features	Computer	Source	Cost	Comments
2,5,6	3a	2	75-100	
2,3,5	2	6		
3	1	8		
2	1	27	no fee	
2,5	3a	32	250	
2,3,5,6,7	3a	33		
1,2,5	1,2,3a	42	100	
2	3a	52		

The following codes are used:

Computer:

1	mainframe
2	minicomputer
3a	IBM PC or compatible
3b	Apple
3c	Other microcomputer

Scanner:

3000	NCS 3000
7001-18	NCS 7001-18
1400	Scantron 1400
SCAN	Scantron desktop
3881	IBM 3881
COGN	Cognitronics

Features:

1	publisher tape	5	upper/lower case
2	terminal input	6	math,chem symbols
3	word processing	7	graphics
4	other input		

Source:

Number refers to list of respondents attached.

Gradebook

Features	Computer	Scanner	Source	Cost	Comments
1,2,3,4	3a	3000	2	25-50	
1,2,3,4	2	7001	6		
1,2,3,4	3a	7018	18		
1,3,4	1	7005+	21	500	pending
3,4	1	7006	27	no fee	
1,3,4	1	COGN	41		
1,3,4	2	7005+	42	50	
1,2,3,4	1	7005+	59	no fee	

The following codes are used:

Computer:

1	mainframe
2	minicomputer
3a	IBM PC or compatible
3b	Apple
3c	Other microcomputer

Scanner:

3000	NCS 3000
7001-18	NCS 7001-18
1400	Scantron 1400
SCAN	Scantron desktop
3881	IBM 3881
COGN	Cognitronics

Features:

1	differential weights	3	accumulate grades
2	integrate files	4	calculate grades

Source:

Number refers to list of respondents attached.

Miscellaneous Software

Application	Computer	Scanner	Source	Cost	Comments
CAI	3a		2	25	
General purpose scanning	3a	3000	6	100	
Faculty evaluations	3a	3000	6	250	
Faculty evaluations	1		9		
Holistic grading of essays	1		12		
Questionnaire processing	?	?	16		
Faculty evaluations	1	7005+	21	300	
Faculty evaluations	2	7005+	29	negotiable	
Faculty evaluations	?	7001+	34		
Housing questionnaires	?	7001+	34		
Survey data	?	7001+	34		
Objective referenced test	any	any	41		
Score report program	any	any	41		
Faculty evaluation rating	any	any	41		
Faculty evaluation	1,3b	3000	46		
Election Ballots	3a	SCAN	50		
Room Assignments	?	7005+	52		
Faculty evaluations	1	7003	54	no fee	
General purpose scanning	3a	COGN	56		
Questionnaire responses	1	7005+	59		

The following codes are used:

Computer:

1	mainframe
2	minicomputer
3a	IBM PC or compatible
3b	Apple
3c	Other microcomputer

Scanner:

3000	NCS 3000
7001-18	NCS 7001-18
1400	Scantron 1400
SCAN	Scantron desktop
3881	IBM 3881
COGN	Cognitronics

Source:

Number refers to list of respondents attached.

List of Respondents by Institution

1. Alabama, University of
P.O. Drawer BE
Tuscaloosa, AL 35487-1938
Ray C. Smith

2. Andrews University
Berrien Springs, MI 49104
Jerome Thayer

3. American Registry of
Radiologic Technologists
2600 Wayzata Blvd
Minneapolis, MN 55405
Jerry B Reid

4. Arizona State University
University Testing Services
302 Payne Hall
Tempe, AZ 85287
David J Krus

5. Ball State University
Computing Services
Muncie, IN 47306
L. Henricksen

6. Brigham Young University
Testing Services
265 HGB
Provo, Ut 84602
Bud Wood
(801) 378-6129

7. Brookdale Community College
765 Newman Springs Rd.
Lincroft, NJ 07738
Arnold Gelfman

8. Calgary, University of
Office of Medical Education
3300 Hospital Drive, N.W.
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Alain Chan
Faculty of Medicine

9. California, University of,Davis
Teaching Resources Center
Davis, Ca 95616
Marina Estabrook

10. Cal Poly
Test Office
San Luis Obispo, CA 93407
Dr. George C Stanton

11. Calif State University, Fresno
Office of Testing Services
Fresno, CA 93740-0063
William P Stock

12. California State Univ., Fullerton
Fullerton, CA 92634
Dr. John Gillis

13. California State Univ., Northridge
18111 Nordhoff St.
Northridge, CA 91330
Phyllis Shaffer

14. DuPage, College of
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Gene Hallongren

15. Eastern Illinois University
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Charleston, IL 61920
Herbert Bartling

16. Ferris State College
Big Rapids, MI 49307
Fred Swartz

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Testing and Evaluation
500 NW 20th St.
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Dr. Lola Kerlin

18. Florida, University of
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Sue M. Legg

19. Georgia State University
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Susan Ford Neel

20. Idaho, University of
Student Counseling Center
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Moscow, ID 83843
Steve Saladin

21. Indiana University
Bloomington, IN 47405
Clinton I Chase

22. Indiana State University
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Anna R Carson

23. Illinois State University
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Dr Elizabeth Harris

24. Kansas, University of
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Lawrence, KS 66045
Gary E Price

25. Kent State University
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Wayne R Richards

26. Massachusetts, Univ of
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George E Comeo

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Rod Gillis

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Minneapolis, MN 55455
Dallis Perry

30. Missouri, University of
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403 S. Sixth St.
Columbia, MO 65211
Harry R Snyder

31. Montana State University
Testing Service
Bozeman, MT 59717
Albert Suvak

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11015 W 75th Terrace
Shawnee Mission, KS 66214
Sally J Hixon, Ph.D.

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34. Nebraska, Univ of, Lincoln
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38. North Carolina State University
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Leo Buckmaster

39. Sandra Robinson, UND
Counseling Center
P.O. Box 8112 University Station
Grand Forks, ND 58202

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41. Northern Illinois Univ
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42. Iowa State University
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Dennis Deck

44. Ohio State University
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Columbus, OH 43210
Ayres D'Costa

45. Oklahoma, Univ. of
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Norman, OK 73037
Helen Darks

46. Oklahmoma State Univ
Bureau of Tests and Measurements
109 North Murray Hall
Stillwater, OK 74078-0240
Marilyn Ford

47. Ottawa, Univ of
School of Psychology
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KIN-6N5
G. Sarrazin

48. Pennsylvania State Univ
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University Park, PA 16802
Edmond Marks

49. Pittsburgh, University of
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Evaluation
Pittsburgh, PA 15260
Carol Baker

50. Sonoma State University
1801 E Cotati Avenue
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Gerald J Alves

51. South Dakota State University
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Dean Hofland

52. South Florida, University of
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Tampa, FL 33620
Harriet C Seligsohn

53. Southern Illinois University
Learning Resources Service
Carbondale, IL 62901
Roberta Reeves

54. Southwest Missouri State Univ
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Mark A Oglesby

55. Texas, University of, Austin
Measurement & Evaluation Ctr
P.O. Box 7246
Austin, TX 78713
Bill Koch

56. Texas A & M University
Measurement and Research Svs
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College Station, TX 77843
Randy Nelson

57. Trenton State College
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Trenton, NJ 08650
W Daniel Phillips

58. Utah, University of
Testing Center
490 SSB
Salt Lake City, UT 84112
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59. Virginia Tech
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Robert B Frary

60. Washington, Univ. of
Educ Assess Ctr.
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Seattle, Wa 98195
Gerald M Gillmore

61. Wayne State University
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Thomas J Wilhelm
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62. Wisconsin, Univ of, Madison
Testing & Evaluation Services
1025 W Johnson, #366
Madison, WI 53706
Allan Cohen
(608) 262-5863

63. Wisconsin, Univ. of, Oshkosh
Testing & Research Svs.
800 Algoma
Oshkosh, Wi 54901
Tim H Hoyt
(414) 424-1433

64. Wyoming, Univ. of
Testing Center
P.O. Box 3708
Laramie, WY 82071
Ronald A Jackson

1986 Measurement Services
Software Questionnaire

This reproduction of the questionnaire can be used with the survey results to better help you to understand the responses and explanations given. Questions should be directed to:

Bud Wood
265 HGB - BYU
Provo, Ut 84602

PART I - HARDWARE CONFIGURATION PRESENTLY USED

1. Please indicate the computer(s) used by your office, whethe actually located in your office or not and the percent of usage on each machine.

_____% A. College or University Mainframe (Type_____
_____

_____% B. Minicomputer

_____% C. Microcomputer (PC's) and then check
( ) IBM pc or compatible
( ) Apple (including MacIntosh)
( ) Other (specify_____)

2. Please indicate the scanner(s) used by your office, whether actually located in your office or not and the percent of usage on each machine.

_____% A. NCS 2050
_____% B. NCS 3000
_____% C. NCS 7001, 7003, etc
_____% D. NCS 7005, 7008, 7010, etc.
_____% E. ScanTron standalone
_____% F. ScanTron 5200
_____% G. ScanTron System 9000
_____% H. IBM 1230
_____% I. Cognitronics
_____% J. Other (specify_____)

PART II - SOFTWARE CURRENTLY USED

A. General purpose classroom test scoring software (If none, circle N/A and skip to next page.)

1. Computer used if you have more than one (A - C in Part I, question 1.)_____

2. Scanner used if you have more than one (A - J in Part I,question 2.)_____

3. Program name_____

4. How did you obtain this software? (Circle A, B, or C)
   A. commercial
      source_____
      approx cost_____
   B. developed in-house
      available to share? Yes No
      if there is a fee, specify_____
   C. From other institution (specify)_____

5. Which of the following features are available in your test scoring program(s)? (Please check)

How essential is each feature in your opinion?
1. Essential
2. Useful, but not essential
3. Not Useful

CIRCLE the appropriate number in the space to the right of each feature.

_____	Item analysis	1	2	3
_____	Alpha list of names and scores	1	2	3
_____	ID list of scores	1	2	3
_____	Score distribution table	1	2	3
_____	Score data written to disk or file	1	2	3
_____	Raw data (answers) written to disk or file	1	2	3
_____	Subscores available	1	2	3
_____	Differential weighting of items (i.e., questions worth 2 points)	1	2	3
_____	Test reliability coefficient	1	2	3
_____	Collusion coefficients	1	2	3
_____	Output plot or graph of scores	1	2	3
_____	Score report slip for each student	1	2	3

6. Are you satisfied with the test scoring system you presently have? (please circle) yes no

B. **Psychological/Vocational Interest Test programs.** Most of us provide some type of scoring service in support of counseling centers. Please indicate below the specific vocational and/or psychological inventories you computer score for counseling purposes. If you have different tests that are handled differently, please make a copy of this page and respond for each. (If none, circle N/A and skip to next page.)

1. Computer used if you have more than one (A - C in Part I, question 1)_____

2. Scanner used if you have more than one (A - J in Part I, question 2)_____

3. List the tests that are processed_____
_____
_____
_____
_____
_____

4. Are scores plotted? yes no
   If so, is a graphics printer needed? yes no

5. How did you obtain this software? (Circle A, B, or C)
   A. commercial
      source_____
      approx cost_____

   B. developed in-house
      available to share? Yes No
      if there is a fee, specify_____

   C. From other institution (specify)_____

6. Are you pleased with this software? yes no

C. **Placement Testing.** If you do placement testing, please complete this section of the questionnaire. If you do different kinds of testing in different ways, please copy this section of the questionnaire and complete the information for each method of testing. (If none, circle N/A and skip to next page.)

1. Computer used if you have more than one (A - C in Part I, question 1)_____

2. Scanner used if you have more than one (A - J in Part I, question 2)_____

3. List the tests that are processed_____
_____
_____
_____
_____
_____

4. Are scores plotted? yes no
   If so, is a graphics printer needed? yes no

5. How did you obtain this software? (Circle A, B, or C)
   A. commercial
      source_____
      approx cost_____

   B. developed in-house
      available to share? Yes No
      if there is a fee, specify_____

   C. From other institution (specify)_____

6. Are you pleased with this software? yes no

D. **Specialized test scoring software** - If you have software developed to score a particular test such as ACT, GED, etc., please complete this section of the questionnaire. Again, if you have multiple applications that are different, please copy this page and complete the questionnaire for each unique application. (If none, circle N/A and skip to next page.)

1. Computer used if you have more than one (A - C in Part I, question 1)_____

2. Scanner used if you have more than one (A - J in Part I, question 2)_____

3. List the tests that are processed_____
_____
_____
_____
_____
_____

4. Are scores plotted? yes no
   If so, is a graphics printer needed? yes no

5. How did you obtain this software? (Circle A, B, or C)
   A. commercial
      source_____
      approx cost_____

   B. developed in-house
      available to share? Yes No
      if there is a fee, specify_____

   C. From other institution (specify)_____

6. Are you pleased with this software? yes no

E. **Item Banking and Test Generation Software.** (If none, circle N/A and skip to next page.)

1. Computer used if you have more than one (A - C in Part I, question 1)_____

2. Where did you obtain this software? (Circle A, B, or C)
   A. commercial
      source_____
      approx cost_____

   B. developed in-house
      available to share? Yes No
      if there is a fee, specify_____

   C. From other institution (specify)_____

3. How are items entered into your item banks? (Circle all that apply)
   A. From publisher's tapes
   B. From terminal as part of item banking program
   C. From word processing text file
   D. Other (specify_____)

4. Does your program support (Circle all that apply)
   A. Upper/lower case
   B. Special math or chemistry symbols
   C. Graphics

5. Are you pleased with this software? yes no

F. **Grade Book Software** - (If none, circle N/A and skip to next page.)

1. Does your program integrate with enrollment files?
   yes no

2. Does the program accumulate test grades for the entire term or semester? yes no

3. Does it calculate final grades? yes no

4. Are options available to weight exams differently?
   yes no

5. Where did you obtain this software? (Circle A, B, or C)
   A. commercial
      source_____
      approx cost_____

   B. developed in-house
      available to share? Yes No
      if there is a fee, specify_____

   C. From other institution (specify)_____

6. Are you pleased with this software? yes no

G. **Miscellaneous Software** - Please include below any software you are using that has not previously been covered. Copy this page and complete the information for each unique application you are reporting on. (If none, circle N/A and skip to Part III on next page.)

1. Computer used if you have more than one (A - C in Part I, question 1)_____

2. Scanner used if you have more than one (A - J in Part I, question 2)_____

3. List the application_____
_____
_____
_____
_____
_____

4. Special features_____
_____
_____

5. How did you obtain this software? (Circle A, B, or C)
   A. commercial
      source_____
      approx cost_____

   B. developed in-house
      available to share? Yes No
      if there is a fee, specify_____

   C. From other institution (specify)_____

6. Are you pleased with this software? yes no

PART III - NEW SOFTWARE DESIRED

Please indicate in this section, your "wish list" of software, the equipment you would like it to run on, and any special features desired. Next, list the cost you feel would be reasonable to pay for such software and finally, please indicate if you would prefer to buy the program or would prefer to develop it yourself. As before, please copy this page and provide the information requested on all software for your "wish list".

1. I would like software to _____
_____
_____
_____

2. Special features desired (if any)_____
_____
_____
_____

3. It should run on _____ computer utilizing a(n) _____ scanner.

4. What would be a reasonable cost to pay for this program? _____.

5. I plan to buy/develop myself (please circle) the software. If buy, what is your anticipated source?_____
_____
_____